



Pacific Island Network Inventory and Monitoring Program





Pacific Island Network

There are many ways to welcome you to the National Park Service's only island network, spanning thousands of miles of the tropics in the South and Central Pacific Ocean. Dotted with a handful of national park units, the Pacific Island Network (PACN) includes 11 federally protected areas on the naturally and culturally rich islands and archipelagoes of Hawaii, American Samoa, Guam, and the Northern Mariana Islands (see map on back page).

Aloha

Talofa

Greetings

Tirow

Hafa adai

Pacific Island Network Parks

Ala Kahakai National Historic Trail, Hawai'i

Hawai'i Volcanoes National Park, Hawai'i

Kaloko-Honokōhau National Historical Park, Hawai'i

Pu'uhonua o Hōnaunau National Historical Park, Hawai'i

Pu'ukoholā Heiau National Historic Site, Hawai'i

Haleakalā National Park, Maui

Kalaupapa National Historical Park, Moloka'i

USS *Arizona* National Memorial, O'ahu

American Memorial Park, Northern Mariana Islands

National Park of American Samoa, American Samoa

War in the Pacific National Historical Park, Guam

Science Helps Protect Park Resources

National park managers face complex issues that require a broad-based understanding of the condition of park resources. The National Park Service established a nationwide Inventory and Monitoring program (I&M) to ensure that park managers have high quality, scientifically based information to protect and manage national parks. Grouped by natural and regional similarities, the I&M program is comprised of 32 "networks" of parks, one of which is the Pacific Island Network.

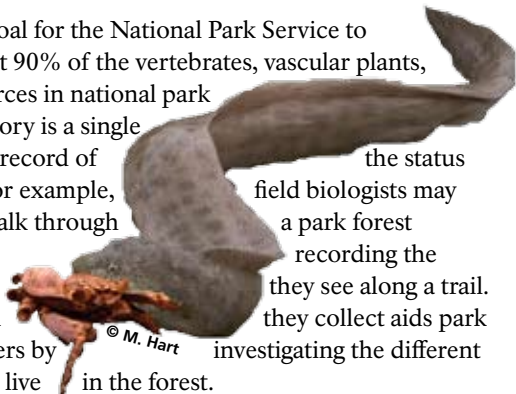


National Park Service staff collect field data at Kalaupapa National Historical Park (top) and War in the Pacific National Historical Park

Understanding the dynamic nature of park ecosystems and the impacts of human activities is essential for management and decision-making in the PACN. Through the I&M program, inventories are conducted to investigate the status of natural resources, and monitoring techniques are developed to look for changing trends. Coupled with careful data organization these I&M components provide park managers with the tools they need to make informed decisions.

Inventories: Documenting Nature’s Diversity

Congress set a goal for the National Park Service to inventory at least 90% of the vertebrates, vascular plants, and other resources in national park units. An inventory is a single “point-in-time” record of the status of a resource. For example, field biologists may systematically walk through a park forest identifying and recording the species of birds they see along a trail. The information they collect aids park resource managers by investigating the different bird species that live in the forest.



Scientists measure the condition of plants, animals, water, air, and geologic resources as well as the biological, ecological, and physical processes that act on these resources. From terrestrial botany to aquatic ecology, scientists collect, process, and store data using the best methods available. The scientific data they provide and analyze will promote early detection of potential resource problems. This enables park resource managers to take action that benefits the overall health of park resources to ensure they will last for generations to come.



As science continues to provide insights into the mysteries of nature, we are learning that our national parks contain an unrecognized abundance and diversity of life, representing vignettes of a disappearing wild America. These native ecosystems are tremendously complex and their protection hinges on the identification and effective management of their key components, including living things, natural processes, and landscape features. The National Park Service has embarked on a new era of management that relies on science to improve management decisions and safeguard our natural heritage. An essential component of this strategy is an inventory of the natural resources found in the national parks.

- Natural Resource Information Division

The quality of the water which entombs the sunken USS Arizona is regularly monitored



Throughout the ages, kings and commoners alike have trekked through the diverse landscape at Pu'uuhonua o Hōnaunau National Historical Park



Monitoring: Tracking Natural Resources

National parks possess many diverse and breath-taking natural treasures. However, beauty is not a sufficient indicator of the condition and health of the parks. A major component of the I&M program is to document how natural resources change over time in order to ensure the future of those resources. Unfortunately, it is unrealistic to monitor every single natural resource at once. Although every natural resource is important, the I&M program is charged with selecting the most relevant “Vital Signs” on which to focus long-term monitoring work.

What is a Vital Sign?

In the same way that it is important to periodically check Vital Signs of a person (such as their pulse or breathing), it is essential to monitor the Vital Signs of nature. Vital Signs are critical indicators of the overall health of the natural environment. Over the course of several years, the PACN gathered the input of scientists, park employees, community members, and others to devise a comprehensive list of important Vital Signs to monitor in network parks. For each Vital Sign, a set of long-term monitoring methods, or “protocols” is being created. This will ensure consistency for natural resource monitoring long into the future.

MONITORING VITAL SIGNS

Climate

Landscape Dynamics

Seabirds

Landbirds

Bats

Focal Terrestrial Plant Communities

Status and Trends of Established Invasive Plants

Early Detection of Invasive Plants

Early Detection of Invasive Invertebrates

Terrestrial Invertebrate Communities

Cave Community

Erosion and Deposition

Water Quality

Groundwater Dynamics

Freshwater Animal Communities

Benthic Marine Community

Marine Fish

Fish Harvest



The brilliant Micronesian honeyeater captured on film at American Memorial Park



Endangered silverswords are part of an important native plant community at Haleakalā National Park

Nature Connects with Culture

The PACN is unique in the National Park Service because it has the added challenge of integrating cultural resource values into its monitoring program. In the Pacific islands, cultural and natural resource values are often inseparable. This network strives to integrate the rich cultural values of Hawaiians, Chamorros, Carolinians, Samoans, the residents of Kalaupapa, and others into the program by identifying resources that share natural and cultural value.



This anchialine pool resides near the Ala Kahakai National Historic Trail at Kaloko-Honokōhau National Historical Park. These brackish pools provided early Hawaiians with water for agriculture, aquaculture, bathing, and food harvesting. These important sites still harbor a microcosm of endemic wildlife.

Through the information gathered, stored, and interpreted by the Pacific Island Network Inventory and Monitoring program, it is an honor to help serve the nation in the protection and understanding of our shared natural resources.

For more information contact:

**Pacific Island Network
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National Park Service
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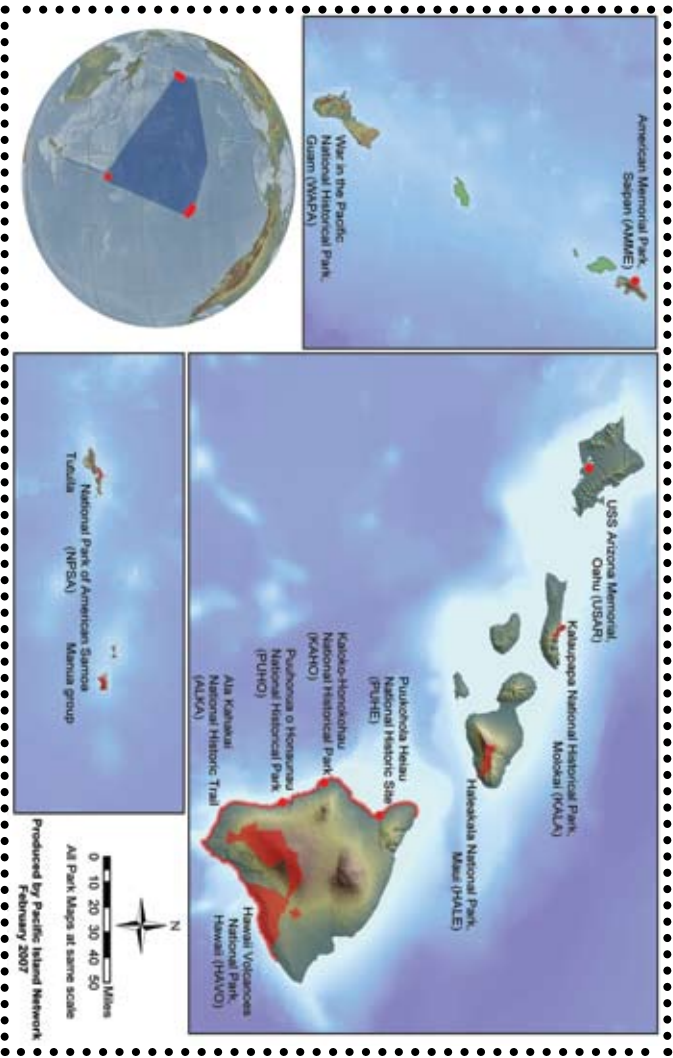
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The endemic
Samoa
fruit bat,
also known as a flying fox, is
one of only three native land
mammals (all bats) in
American Samoa



The 11 units of The Pacific Island Network